

Service Bulletins:

ASC20110506002

Preventing the failure or repeated failure of the X Main board .

Quick Parts List:

Version	Parts No	Short Description
ALL	BN44-00442A	SMPS
N102	BN96-16507A	Logic Main PCB
B104	BN96-16507B	Logic Main PCB
ALL	BN96-16508A	Buffer E
ALL	BN96-16509A	Buffer F
N102	BN96-16510A	X Main
B104	BN96-16510B	X Main
ALL	BN96-16511A	Y Main
ALL	BN96-16512A	Y Main Scan
ALL	BN96-16730C	Function & IR PCB
ALL	BN96-19470A	Main PCB
N102	BN96-17356A	Panel
B104	BN96-17356B	Panel
ALL	BN96-16782A	Rear Cover
ALL	BN96-16786A	Stand Guide
N102	BN96-16789A	Stand Base
ALL	BN96-16789C	Stand Base
N102	BN96-17869P	Front Cover
N102	BN40-00140B	Tuner
ALL	BN96-13325G	LVDS Cable
N102	BN96-18071A	Speaker
ALL	3903-000467	Power Cord
ALL	AA59-00506A	Remote

HELP: 1-888-751-4086 (Tech Support)

GSPN

http://service.samsungportal.com/EP/web/portal/jsp/EP_Default1.jsp

PLUS ONE

<http://my.plus1solutions.net/clientPortals/samsung>

HOT TIPS

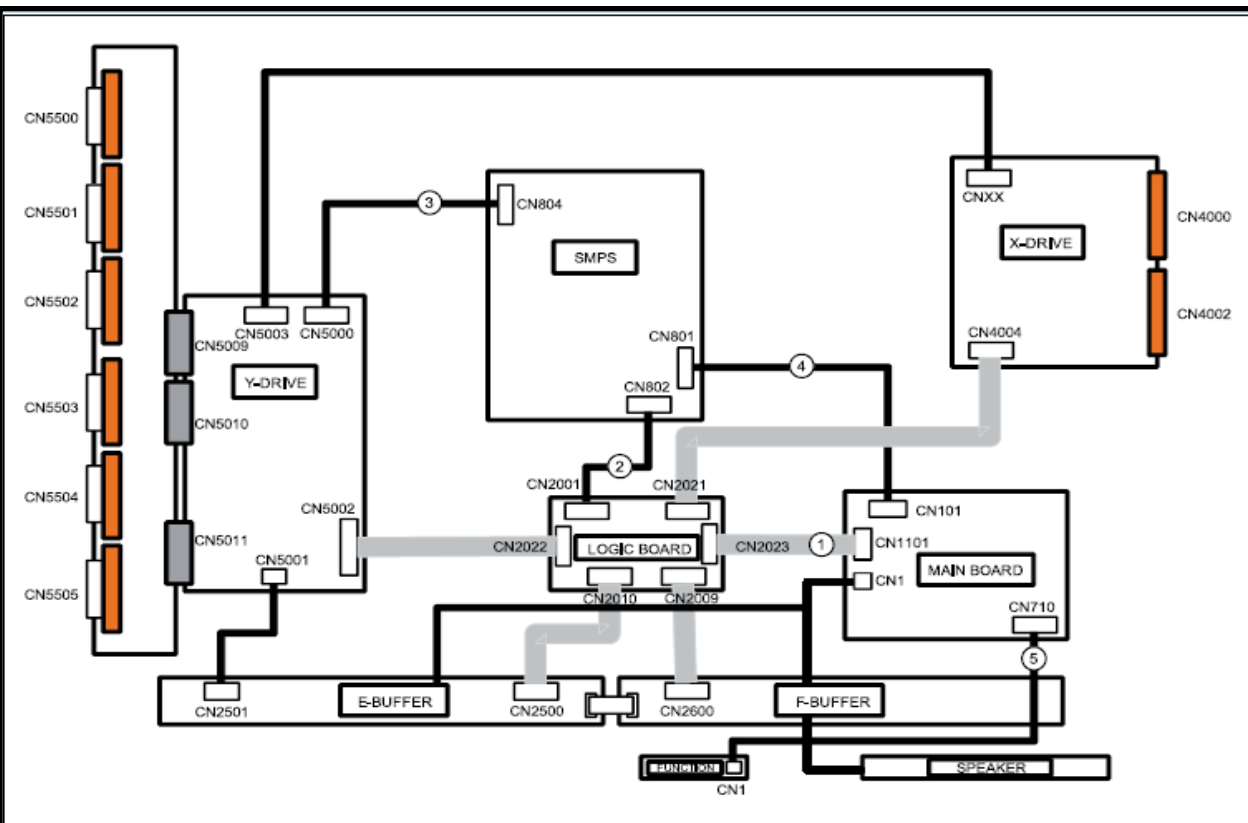
-Power On Problems: (pg. 3)

-Video Problems: (pg. 4)

Latest Firmware:

Firmware for 2011 PDP Saturn 4
TV Video & Audio > TV > Plasma
Model Code: PN43D440A5DXZA Added by
CMS Registered date 05.18.2011 Display Y
Attached Files

[2011 PDP TV Firmware Upgrade Instruction.pdf\(134.7KB\)](#)
[T-STD4AUSHC.exe\(4.3MB\)](#)



Power On Sequence:

1. STBY 5V (CN801, #2, 5v)
2. PS_ON (CN801, #1, 3.3v-0v)
3. VS_ON (CN802, #6, 0-3.3v)
4. Panel should illuminate briefly

(5)
CN710 (MAIN) - FUNCTION

Pin No.	Signal
1	IR
2	GND
3	A3.3V
4	SCL
5	SDA
6	KEY_INPUT1
7	KEY_INPUT2
8	LED_STB

(2)
43" only
CN802 (SMPS) - CN2001 (LOGIC)

Pin No.	Signal
1	D5.3V
2	D5.3V
3	GND
4	GND
5	PS_ON
6	VS_ON

(3)
CN804 (SMPS) - CN5000 (Y-BOARD)

Pin No.	Signal
1	V _s
2	V _s
3	GND
4	V _g
5	GND
6	V _a

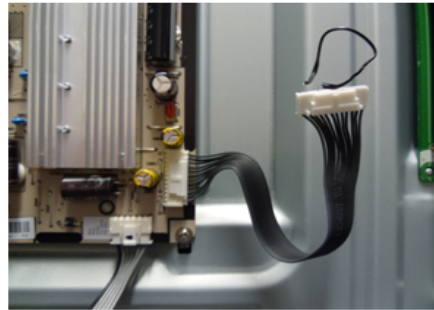
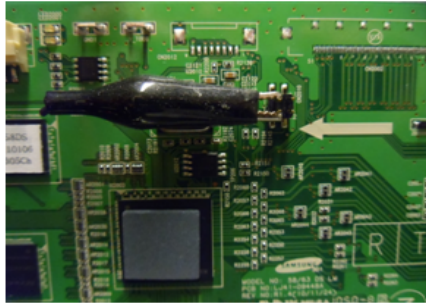
(4)
CN801 (SMPS) - CN101 (MAIN)

Pin No.	Signal
1	PS_ON
2	STBY
3	GND
4	VAMP
5	GND
6	GND
7	D5.3V
8	D5.3V
9	GND
10	15V
11	15V
12	D5.3V

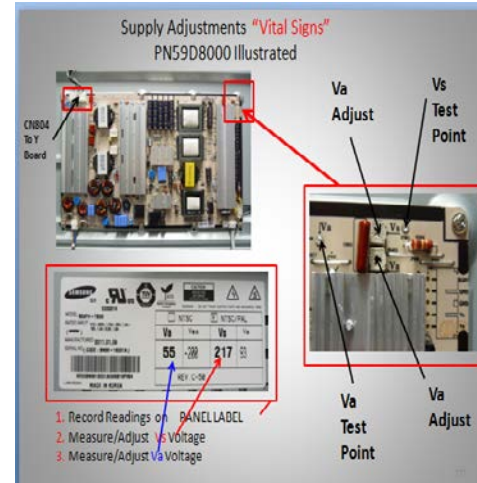
“Troubleshooting”

Activating Power & Logic Board Test Patterns without Main Board:

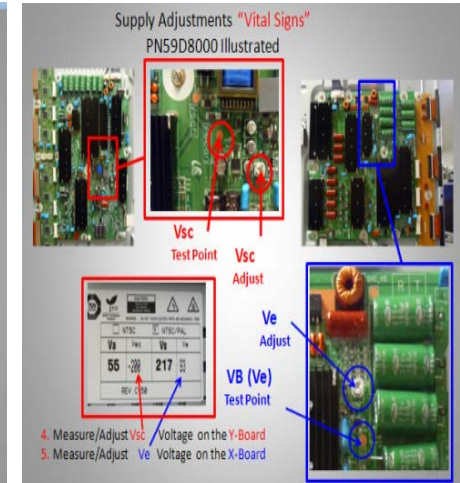
1. Remove Power Cord to Panel
2. Short Highest 2 Pin #s on Logic Board Test Jig (Can be 4 Pin or 6 Pin)



3. Remove Power Connector at Main Board (keeping connection to SMPS)
4. Short “Power On” Pin to Circuit Ground on Power Connector to SMPS.
5. Connect Power Cord to Panel



Sample



“VITAL SIGNS”

When troubleshooting, It's very important to first check **Vs, Va, Vsc & Ve**. If **Vs** is missing (0V), disconnect power and check for short. Use ohm meter to measure resistance while disconnecting Y-Board & X-Board supply feeds one at a time.

Turn Power On and Test SMPS with shorted connector removed for correct Vs voltage verification. (It may only come up briefly but to full level). Be careful not to reconnect power connectors until Vs falls below 10V.

If **Va** is low or missing, disconnect power connectors to Address Boards and Check to see if SMPS Supply is restored. (Note Va feed normally passes through the Y-Drive to the Address Boards (Logic Buffer Boards). If **Vsc** is low or missing and Vs is OK, the failure is with the **Y-Board** since the Y-Board generates the Vsc voltage from the supplied Vs.

If **Ve** is low or missing and Vs is OK, the failure is with the **X-Board** since the Ve is generated by the X-Board from the supplied Vs. (Please note: In some rare cases the Ve is generated by the Y-Board fed to the X-Board.)

Other SMPS Voltages:

Check Low Voltage feeds to the Main Board and other supplied Assemblies.

Power Supply Trouble Shooting Notes:

2010/2011 models

Will not be run with the “X” or “Y” main disconnected. The SMPS will shut down immediately. However if a meter is first connected to the test point when power is applied it will read the correct voltage briefly before shutting down. (You have enough time to check key voltages)

CAUTION: Do not reconnect any connectors to SMPS or Y/X Boards until power has been turned off long enough for Vs to drop below 10V or damage will occur to X or Y Boards.

SMPS Over Current Protection

If a short circuit occurs on either the VS or VA voltage lines, the SMPS stops operating, but should not fail. When the short circuit is removed from the source line, the Power Supply will operate normally again.

Many SMPS Supplies are replaced needlessly!

TROUBLESHOOTING VIDEO PROBLEMS

1. Verify Video Operation

- Customer Picture Test** (if available)
- "Display"** (If display is OK source is suspected)
- Substitute with known good Source
(**external DVD or Signal Generator**)

2. Using Test Patterns in Service Mode

- ENTERING SERVICE MODE -

Customer Remote:

- Power off
- Mute, 182, Power

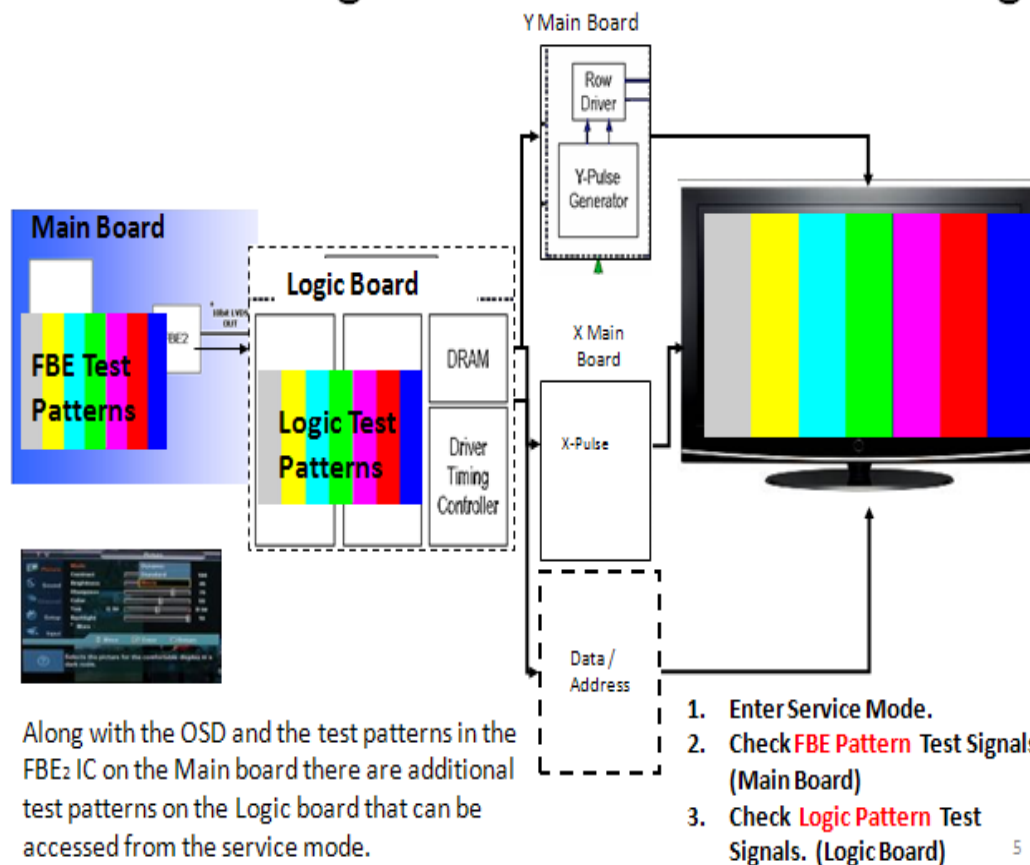
Service Remote:

- Power On
- Info, Test

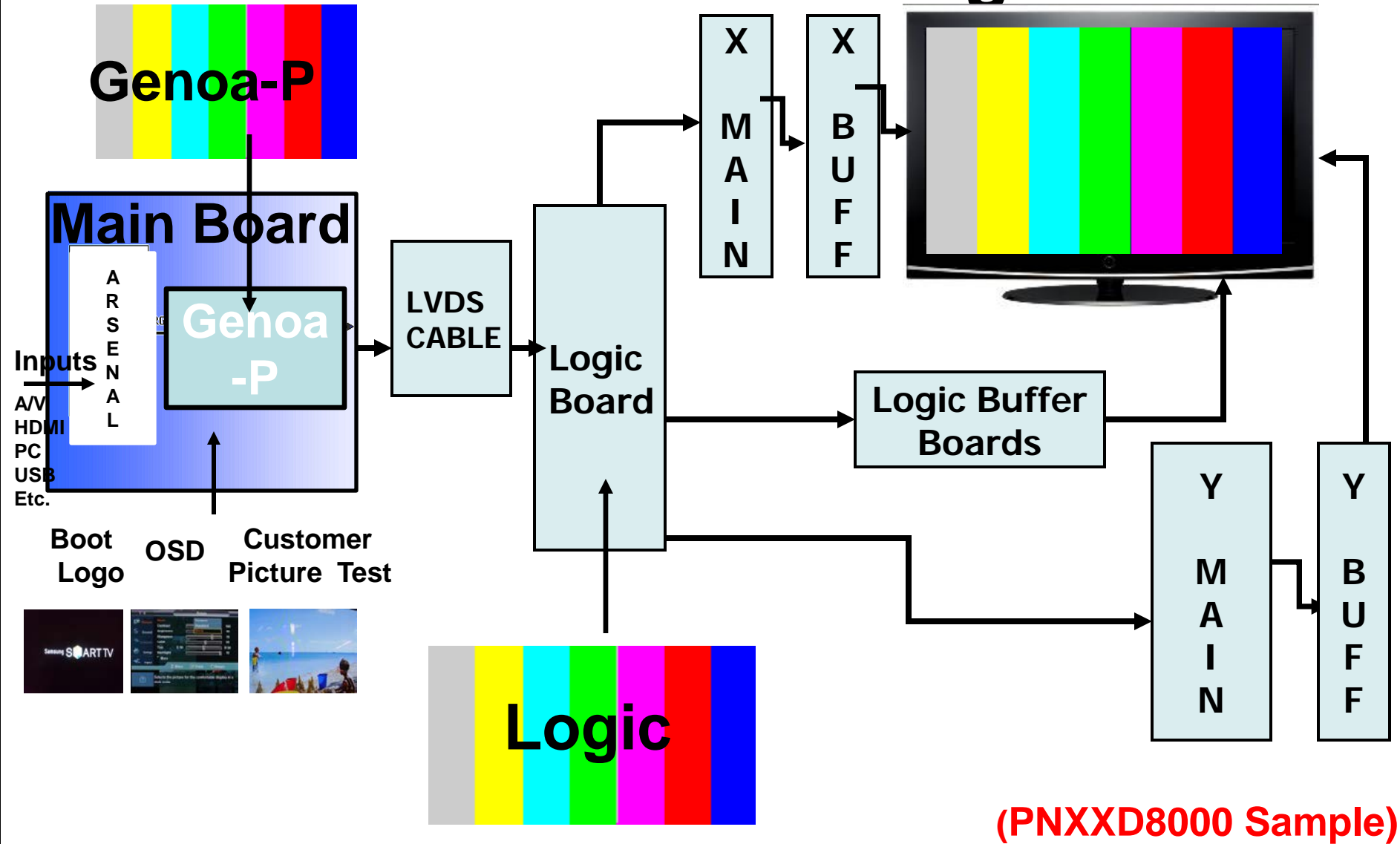
3. Determine cause

- If Logic pattern is NG; Logic board, Logic buffers or Panel are suspect.
- If FBE patterns is NG and Logic is OK; Main or LVDS cable are suspect.
- If both are OK it is likely a source issue.

2010 PDP Signal Path for Troubleshooting



2011 PDP Signal Path for Troubleshooting



ALIGNMENTS & OPTION BYTES :

1. Check/Adj. VS, VA, VE, & VSC according to Panel Label and Diffusion test. (see bulletins for any special notes before making changes)
2. Check/Set Option Bytes:
 - ENTER SERVICE MODE -
 - a) Customer Remote: Power off; Mute, 182, Power On
 - b) Service Remote: Power On; Info, Test

DIFFUSION TEST/ADJ. (cell miss-firing, older units)

- Allow the unit to warm up 15 to 20 minutes
- Access the Burn Protect Sig. Pattern in Cust. Menu.
- Adjust the Vs volts until screen errors are gone in both dark and bright areas.
- Adjust the Vs volts within +/- 10V on the panel label.

Model Code	Side Label	Option					
		Type	Model	Tuner	Audio AMP	Front Color	Exhibition Mode
PN43D440A5 DXZA	N101	43DHHcD	PD440	ALPS	TAS5715	P-S-C-BK	OFF
	N102	43DHHcD	PD440	ALPS	TAS5715	P-S-C-BK	OFF
	A103	43DHHcD	PD440	ALPS	TAS5715	P-S-C-BK	OFF
	B104	43DHHcD	PD440	ALPS	TAS5715	P-S-C-BK	OFF
	I105	43DHHcD	PD440	ALPS	TAS5715	P-S-C-BK	OFF
	I406	43DHHcD	PD440	ALPS	TAS5715	P-S-C-BK	OFF
	I407	43DHHcD	PD440	ALPS	TAS5715	P-S-C-BK	OFF
	I108	43DHHcD	PD440	ALPS	TAS5715	P-S-C-BK	OFF



SPECIAL NOTES:

See bulletin "Red Dots" for correction/adjustments for this model.